

CLAIM AMENDMENTS

Claims 1-60 (canceled)

Claim 61 (new): A sample solution that when mixed with a sample,

- (a) selectively modifies at least one dielectric property of at least one component of said sample;
- (b) has a conductivity such that one or more moieties of said sample can be separated using dielectrophoretic forces; and
- (c) has an osmolarity of between about 20 mOsm and about 150 mOsm.

refers
sample

Claim 62 (new): The solution of claim 61, wherein said sample solution when mixed with a sample has an osmolarity of between about 30 mOsm and about 100 mOsm.

Claim 63 (new): The solution of claim 61, wherein said solution comprises one or more zwitterionic compounds.

Claim 64 (new): The sample solution of claim 61, wherein said sample solution selectively lyses red blood cells.

Claim 65 (new): The sample solution according to claim 64, wherein said sample solution comprises glycerol.

Claim 66 (new): The solution of claim 65, comprising a concentration of glycerol such that when the solution is mixed with a whole blood sample, the concentration of glycerol in the blood sample-sample solution mixture is from about 0.075% to about 0.085%.

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Claim 67 (new) The sample solution of claim 64, wherein said sample solution comprises sucrose, mannose, mannitol, or sorbitol.

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Claim 68 (new): The sample solution of claim 67, wherein said sample solution comprises sucrose.

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Claim 69 (new) The sample solution of claim 68, wherein the concentration of sucrose in said sample solution is such that when said solution is mixed with a whole blood sample, the concentration of sucrose in the sample solution-blood sample mixture is from about 0.05% to about 0.15%.

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Claim 70 (new): A method of separating one or more moieties of a sample, comprising:
a) adding the sample solution of claim 61 to said sample; and
b) separating one or more moieties of said sample using dielectrophoretic forces.

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Claim 71 (new): The method of claim 70, wherein said moieties are cells.

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Claim 72 (new): The method of claim 71, wherein said cells are white blood cells, malignant cells, stem cells, progenitor cells, fetal cells, cells infected with an etiological agent, or bacterial cells.

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Claim 73 (new): The method of claim 70, wherein said moieties are etiological agents or portions thereof.

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Claim 74 (new): The method of claim 70, wherein said sample is a blood sample.

Claim ¹⁵~~75~~ (new): The method of claim ¹⁴~~74~~, wherein said sample solution selectively lyses red blood cells.

Claim ¹⁶~~76~~ (new): The method of claim ¹⁵~~75~~, wherein said sample solution comprises glycerol.

Claim ¹⁷~~77~~ (new) The sample solution of claim ¹⁸~~78~~, wherein said sample solution comprises sucrose, mannose, mannitol, or sorbitol.

Claim ¹⁸~~78~~ (new): The sample solution of claim ¹⁷~~77~~, wherein said sample solution comprises sucrose.

Claim ¹⁹~~79~~ (new): The method of claim ¹⁰~~79~~, wherein said moieties are separated in a chamber that comprises a chip.

Claim ²⁰~~80~~ (new): The method of claim ¹⁹~~79~~, wherein said sample is added to said chamber by continuous flow.

Claim ²¹~~81~~ (new - formerly dependent claim 27): The method of claim ¹⁹~~79~~, wherein said sample solution is added to said chamber by continuous flow.

Claim ²²~~82~~ (new): The method of claim ¹⁹~~79~~, wherein said sample solution is added to said chamber before said sample is added to said chamber.

Claim ²³~~83~~ (new): The method of claim ¹⁹~~79~~, wherein said sample is added to said chamber before said sample solution is added to said chamber.

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Claim 84 (new): The method of claim 79, wherein said sample solution is added to said sample prior to adding said sample to said chamber.

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Claim 85 (new): The method of claim 79, wherein said sample and said sample solution are added to said chamber at the same time.

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Claim 86 (new): The method of claim 79, wherein said chip comprises at least two electrodes.

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Claim 87 (new): The method of claim 70, further comprising binding at least one binding partner to at least one moiety of a sample.

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Claim 88 (new): The method of claim 70, wherein said separating is by dielectrophoretic retention, dielectrophoretic migration, dielectrophoretic/ gravitational field flow fractionation, traveling wave dielectrophoresis, or 2-D dielectrophoresis.

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Claim 89 (new): A method of separating one or more moieties from a blood sample, comprising:
a) adding the solution of claim 64 to said blood sample;
b) adding at least one preparation comprising one or more magnetic microparticles to said blood sample;
c) adding said blood sample to an electromagnetic chip; and
d) subjecting said blood sample to electromagnetic forces, such that one or more moieties of interest are selectively retained in one or more areas of said chip.

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Claim 90 (new): The method of claim 89, wherein said moieties of interest are cells.

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Claim 91 (new): The method of claim 90, wherein said cells are white blood cells, malignant cells, stem cells, progenitor cells, fetal cells, bacterial cells, or cells infected with an etiological agent.

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Claim 92 (new) The method of claim 89, wherein said moieties of interest are viruses.

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Claim 93 (new): The method of claim 89, wherein said chip comprises at least a part of the source of said electromagnetic forces.

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Claim 94 (new - formerly dependent claim 52) The method of claim 89, wherein said magnetic particles comprise one or more specific binding members.

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Claim 95 (new): The method of claim 94, wherein said one or more specific binding members comprises at least one antibody or antibody fragment.

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Claim 96 (new): The method of claim 89, wherein said magnetic microparticles comprise metal, ceramics, glass, plastics, or at least one polymer.

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Claim 97 (new): The method of claim 89, wherein said magnetic microparticles are from 2 microns to 50 microns in diameter.

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Claim 98 (new): The method of claim 89, wherein said adding at least one preparation comprising one or more magnetic microparticles to said blood samples occurs before adding said blood sample to said electromagnetic chip.

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Claim 99 (new): The method of claim 89, wherein said adding at least one preparation comprising one or more magnetic microparticles to said blood samples occurs after adding said blood sample to said electromagnetic chip.